



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,544	01/11/2002	Ramesh Pendakur	42390P11540	9141
8791	7590	07/11/2007	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			SALCE, JASON P	
		ART UNIT	PAPER NUMBER	
		2623		
		MAIL DATE	DELIVERY MODE	
		07/11/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/044,544	PENDAKUR ET AL.
	Examiner Jason P. Salce	Art Unit 2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 April 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-32 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-32 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/30/3007 have been fully considered but they are not persuasive.

Applicant has amended the claim to recite, "and wherein the protocol-specific transmission settings are specific to a protocol used by a transmission execution process". The examiner notes that the new claims limitations still read on the Hendricks prior art reference of record (see rejection below).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-12, 21-22, and 25-31 rejected under 35 U.S.C. 102(b) as being anticipated by Hendricks et al. "Hendricks" (U.S. 5,600,573).

Regarding Claim 1, Hendricks discloses, a method comprising: generating packets of content data to be broadcast from a content provider system via a network wherein the packets of content data include metadata describing the content data (Col. 7, lines 46-61 and Col. 9, lines 56-65). Hendricks discloses operations center 202 or "content provider system" receives packets of data from various external sources and provides the packaged packets of data to a cable headend or remote site 208 as shown

in figure 1. Further, the operations center 202 or "content provider system" performs two primary services, packaging packets for transmission and generating the program control information signal. The program control information signal reads on metadata as the program control information signal contains a description of the contents of the program package (including program lineup information and categories), commands to be sent to the cable headend 208 and/or set top terminal 220 (Col. 8, lines 34-38).

Hendricks further discloses, composing a playlist designating an order in which said packets of content are to be broadcast (Col. 10, lines 33-48). Hendricks discloses CAP 316 comprises a scheduler 324, which is used to compose a program lineup, or "playlist" that is used to determine what programs will be made available to remote sites 208 and at what times.

Hendricks discloses, composing a transmission of said packets of content data based on said playlist (Col. 13, lines 18-32 and Col. 20, lines 25-36). Hendricks teaches output equipment 320 receives schedule information and/or timing information for transmission of program packages from CAP 316 via system controller 312 as shown in figure 3.

Hendricks discloses, executing said transmission of said packets of content data according to said playlist (Col. 10, lines 24-36 and Col. 20, lines 25-36). As Hendricks discloses, when output equipment 320 receives the playlist information, the content is output remote sites 208.

Hendricks discloses a transmission policy (the program control information signal described above), wherein the transmission policy is based on a playout policy (see

Column 16, Line 49 through Column 19, Line 36 for creating a programming package to be transmitted to the user which defines when programs will be delivered and made available for playing on a user's set-top box) and one or more network resources that are available for said transmission (see Column 7, Lines 5-45 for including television programs with the programming package), wherein the playout policy is a list of protocol-neutral and protocol-specific transmission settings (see Column 20, Lines 40-49 for parent application 08/160,282 (now Patent 5,659,350 incorporated by reference into the instant application) teaching the format for transmitting the program package information to the viewer). Further note Figures 6a and 6b and Column 20, Line 50 through Column 21, Line 15 for the format containing protocol-neutral (see variable information field 932 of Figure 6A and program access block 932' of Figures 6a and 6b) and protocol-specific settings (see address fields 924 and 924' of Figures 6a and 6b), wherein the protocol-specific transmission settings are specific to a protocol used by a transmission execution process (see again Figures 6a and 6b and Column 20, Line 50 through Column 21, Line 15 for the protocol used by the cable headend to transmit data from the headend to the subscribers, therefore Hendricks clearly teaches that the protocol-specific transmission settings are specific to a protocol used by a transmission execution process (the software and hardware used at the headend to transmit programming packages to multiple subscribers)).

Art Unit: 2623

As for Claim 2, Hendricks discloses, wherein said generating packets of content data and said composing a playlist are performed by the content provider system (Hendricks: 202 – figure 1) (Hendricks: Col. 6, lines 15-37).

As for Claim 5, Hendricks discloses, wherein said metadata comprises pre-show content discovery information (Hendricks – Col. 20, lines 33-36).

As for Claim 6, Hendricks discloses, wherein said metadata comprises real-time content discovery information (Hendricks – Col. 20, lines 40-42).

As for Claim 7, Hendricks discloses, wherein said generating packets of content data comprises: gathering content to be broadcast from a content cache on the content provider system (Hendricks – Col. 9, lines 56-67). Hendricks discloses receiver 300 receives or “gathers” content from external sources and the received content is stored or “cached” in storage device 308.

Hendricks discloses, separating said content into packages and package elements within the packages (Hendricks – Col. 7, lines 26-38).

Hendricks discloses, assigning each package and package element a unique identifier (Hendricks – Col. 12, lines 4-6). By disclosing holder 304 organizes the programming video data or “packages” in storage device 308, the packages have to be assigned a unique identifier in order to retrieve the requested package from storage device 308.

Art Unit: 2623

Hendricks discloses, storing said packages in a package cache (308 – figure 3) (Hendricks - Col. 11, lines 47-60).

Hendricks discloses, assigning metadata tags identifying content within the packages and package elements to the packages and package elements (Hendricks - Col. 7, lines 46-56 and Col. 8, lines 30-39). Hendricks discloses CAP 316 controls the packaging process and assigns the program control information or “metadata tags” identifying content within the packages and package elements to the packages and package elements.

Hendricks discloses, marking tagged packages as ready for inclusion in playlists (Hendricks - Col. 10, lines 39-48). Hendricks discloses the scheduler component 324 creates the program lineup information necessary to determine what programs will be made available and therefore the packages must be tagged as ready for inclusion in the program lineups or “playlists”.

As for Claim 8, Hendricks discloses, wherein said composing a playlist comprises: grouping all related packages into content groups (Hendricks – Col. 7, lines 26-38).

Hendricks discloses, encapsulating content groups into a playlist (Hendricks – Col. 7, lines 46-49 and Col. 8, lines 30-39).

Hendricks discloses, passing the playlist to a transmission composition process (Hendricks – Col. 13, lines 30-32). Hendricks discloses the CAP 316 provides the

schedule and timing information to the output equipment 320 or "transmission composition process".

As for Claim 9, Hendricks discloses, concatenating two or more portions of metadata in the playlist prior to passing the playlist to a transmission composition process to generate metadata representing the entire playlist (Hendricks – Col. 7, lines 26-38 and Col. 8, lines 30-39). Hendricks discloses packages can be schedule based on categories and therefore, CAP 316 could group or "concatenate" multiple categories together that may be related before passing the program lineup or "playlist" on to output equipment 320 or "transmission composition process".

As for Claim 10, Hendricks discloses, wherein said encapsulating content groups into a playlist further comprises encapsulating said content groups into a Motion Picture Experts Group-2 (MPEG-2) multiplex (Hendricks - Col. 8, lines 41-51).

As for Claim 11, Hendricks discloses, wherein said composing a transmission comprises: selecting a playlist for scheduling (Hendricks - Col. 21, lines 10-23). Hendricks discloses CAP 316 generates a list of programs or "playlist" stored in storage device 316 and creates a schedules when to make the list of programs available to the subscribers.

Hendricks discloses, defining playout policy parameters (Hendricks - Col. 17, lines 30-35). Hendricks reads on defining playout policy parameters as disclosed, CAP 316

Art Unit: 2623

comprises eleven subroutines, the cable franchise routine 616 is used to determine for each headend, how much video storage space is available and what type of video signal format and video data format is needed.

Hendricks discloses, determining bandwidth required to transmit the playlist (Hendricks – Col. 18, lines 59-64 and Col. 21, lines 23-24). Hendricks discloses operations center 202 first determines the bandwidth required to transmit the program lineup or “playlist” and then acquires transponder space 632 to accommodate the transmission of the program lineup.

Hendricks discloses, determining transmission policy parameters based on the bandwidth required to transmit the playlist and the playout policy parameters (Hendricks - Col. 17, lines 30-35 and Col. 18, lines 59-64). Hendricks discloses the cable franchise routine 616 determines how much storage space is available at cable headend 208 and based off this determination, the CAP 316 allocates transponder space 632 accordingly.

Hendricks discloses, assigning network resources to the playlist based on the transmission policy (Hendricks - Col. 17, lines 28-45 and Col. 18, lines 59-64). CAP 316 allocates enough transponder space to accommodate the size of the program lineup, which is determined by the cable franchise routine 616 or “transmission policy”.

Hendricks discloses caching the transmission as active and scheduled (Hendricks - Col. 21, lines 27-30). Hendricks discloses the signals are stored or cached in output equipment 320 before being transmitted.

As for Claim 12, Hendricks discloses, wherein said executing said transmission comprises: reading a previously generated transmission (Hendricks – Col. 21, lines 30-33).

Hendricks discloses loading transmission policy parameters (Hendricks, Col. 21, lines 18-20).

Hendricks discloses encoding announcement data for each content package into an announcement data stream describing a schedule of content to be broadcast during execution of the transmission (Hendricks - Col. 20, lines 28-33). Hendricks discloses creating a program control information signal or "announcement data stream" for each package comprising the program lineup, menus, and other control information.

Hendricks discloses encoding metadata for each content package into a metadata stream providing a description of content within a content stream (Hendricks – Col. 21, lines 27-30). Hendricks discloses the prepared packages comprise programs, a program list, a schedule, menus, and program control information and therefore the each package is encoded with metadata. Further a description of content within a content stream must be provided so remote site 208 can deliver the package to a requesting client or receiver.

Hendricks discloses sending pre-show content discovery information describing a schedule of content to be broadcast during execution of the transmission (Hendricks - Col. 20, lines 25-36).

Hendricks discloses sending announcement, metadata and content data streams according to a predefined timeslot format (Hendricks, Col. 21, lines 30-37). Hendricks

discloses the program signals can be converted into the format that is required by the receiving remote site 208.

Regarding Claim 21, please see the rejection of claim 1. Also note that Hendricks discloses a machine-readable medium (336 – figures 2 and 6) having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause the processor to: generate packets of content data to be broadcast from a content provider system via a network wherein the packets of content data include metadata describing the content data (Col. 7, lines 46-61 and Col. 9, lines 56-65).

Considering Claim 22, the claimed elements of wherein said generating packets of content data and said composing a playlist are performed by the content provider system, corresponds with subject matter mentioned above in the rejection of claim 2, and is likewise treated.

Considering Claim 25, the claimed elements of wherein said metadata comprises pre-show content discovery information, corresponds with subject matter mentioned above in the rejection of claim 5, and is likewise treated.

Considering Claim 26, the claimed elements of wherein said metadata comprises real-time content discovery information, corresponds with subject matter mentioned above in the rejection of claim 6, and is likewise treated.

Considering Claim 27, the claimed elements of gathering content to be broadcast from a content cache on the content provider system; separating said content into packages and package elements within the packages; assigning each package and package element a unique identifier; storing said packages in a package cache; assigning metadata tags identifying content within the packages and package elements to the packages and package elements; and marking tagged packages as ready for inclusion in playlists, corresponds with subject matter mentioned above in the rejection of claim 7, and is likewise treated.

Considering Claim 28, the claimed elements of wherein said composing a playlist comprises: grouping all related packages into content groups; encapsulating content groups into a playlist; and passing the playlist to a transmission composition process, corresponds with subject matter mentioned above in the rejection of claim 8, and is likewise treated.

Considering Claim 29, the claimed elements of further comprising concatenating two or more portions of metadata in the playlist prior to passing the playlist to a transmission composition process to generate metadata representing the entire playlist,

Art Unit: 2623

corresponds with subject matter mentioned above in the rejection of claim 9, and is likewise treated.

Considering Claim 30, the claimed elements of selecting a playlist for scheduling; defining playout policy parameters; determining bandwidth required to transmit the playlist; determining transmission policy parameters based on the bandwidth required to transmit the playlist and the playout policy parameters; assigning network resources to the playlist based on the transmission policy; caching the transmission as active and scheduled, corresponds with subject matter mentioned above in the rejection of claim 11, and is likewise treated.

Considering Claim 31, the claimed elements of reading a previously generated transmission; loading transmission policy parameters; encoding announcement data for each content package into an announcement data stream describing a schedule of content to be broadcast during execution of the transmission; encoding metadata for each content package into a metadata stream providing a description of content within a content stream; sending pre-show content discovery information describing a schedule of content to be broadcast during execution of the transmission; and sending announcement, metadata and content data streams according to a predefined timeslot format, corresponds with subject matter mentioned above in the rejection of claim 12, and is likewise treated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. "Hendricks" (U.S. 5,600,573) in view of Dudkiewicz (U.S. 2002/0152474).

As for Claim 4, note Hendricks discloses the use of meta-tags as discussed in the rejection of claim 1. However, the Hendricks reference does not explicitly disclose wherein said metadata comprises Extensible Markup Language (XML) tags. Now note the Dudkiewicz reference that discloses wherein said metadata comprises Extensible Markup Language (XML) tags (Dudkiewicz - ¶ 66, last three lines). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Hendricks meta tags with the Dudkiewicz metadata comprising Extensible Markup Language in order to take advantage of a well known standard to provide for increased compatibility with a plurality of devices as well as alleviating the need for an operator to work with a proprietary language.

Considering Claim 24, the claimed elements of wherein said metadata comprises Extensible Markup Language (XML) tags, corresponds with subject matter mentioned above in the rejection of claim 4, and is likewise treated.

4. Claims 13 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks in view of Dudkiewicz as applied to claim 1 above, and further in view of Mitchell (U.S. 2002/0162120).

As for Claims 13 and 32, Hendricks discloses receiving said packets of content data at a receiver connected with said content provider system via said network (Figure 1 - Col. 9, lines 13-31).

However, Hendricks fails to explicitly disclose selectively caching or presenting the packets based on a comparison of the metadata describing the content data and user profile information stored on the receiver. In an analogous art, Dudkiewicz discloses selectively caching or presenting the packets based on a comparison of the metadata describing the content data and user profile information stored on the receiver (¶ 0076 – lines 6-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks with the teachings of Dudkiewicz in order to facilitate selectively caching or presenting the packets based on a comparison of the metadata describing the content data and user profile information stored on the receiver for the benefit of determining whether the received programming will be desirable to the user for viewing or storage (Dudkiewicz - ¶ 74).

Hendricks and Dudkiewicz disclose, wherein said receiving said packets of content data comprises: reading the announcement data stream (Dudkiewicz - ¶ 73).

Hendricks and Dudkiewicz further disclose, correlating metadata from the decoded metadata stream to user profile information stored within the receiver (Dudkiewicz - ¶ 76). Dudkiewicz discloses the client device can analyze received metadata to determine desirable upcoming programming events based on the users stored profile.

Hendricks and Dudkiewicz disclose, preparing cache space adequate to store content that has metadata matching the user profile information (Dudkiewicz - ¶ 76). Dudkiewicz discloses recording upcoming programming that matches with the users stored profile, so therefore the cache space or memory must be prepared in order for there to be space within memory to record or store upcoming programming.

Hendricks and Dudkiewicz disclose, caching packages with metadata highly correlated with the filtering criteria (Dudkiewicz - ¶ 76). Dudkiewicz discloses recording upcoming programming events based on the desirability of the programming event as determined with respect to one or more viewer profiles stored in the client device.

However, the combination of Hendricks and Dudkiewicz fail to explicitly disclose finding a predetermined metadata Uniform Resource Locator (URL) in the announcement data stream identifying a location of the metadata stream and decoding the metadata stream identified by the predetermined metadata URL. In an analogous art, Mitchell teaches finding a predetermined metadata Uniform Resource Locator (URL) in the announcement data stream identifying a location of the metadata stream (¶

Art Unit: 2623

64, 73, and 74). Mitchell discloses triggers or "announcements" received by STB 102 or "receiving device" include metadata that identifies the URL addresses or "metadata URL" to the particular television channel, the particular program, and the time of broadcast. Further, the URL provides the location of the received metadata stream. Mitchell further teaches, decoding the metadata stream identified by the predetermined metadata URL (¶ 28). Mitchell discloses converter 206 may process or "decode" URL addresses that are received via a stream separate from the television signals or received via some other connection to the Internet or headend. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hendricks and Dudkiewicz to include finding a predetermined metadata Uniform Resource Locator (URL) in the announcement data stream identifying a location of the metadata stream and decoding the metadata stream identified by the predetermined metadata URL as taught by Mitchell for the benefit of assisting the viewer in placing the supplemental content in context, or to otherwise enhance the integration of the supplemental content with the viewing experience (Mitchell - ¶ 73).

5. Claims 3, 14, 18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. "Hendricks '573" (U.S. 5,600,573) in view of Hendricks et al. "Hendricks '585" (U.S. 6,463,585).

As for Claims 3 and 23, Hendricks '573 fails to disclose wherein said composing a transmission and executing said transmission are performed by a broadcast system head-end. In an analogous art, Hendricks '585 discloses the functions of the operations center 202 or "content provider" and the cable headend 208 may be combined (Col. 9, lines 59-60). Hendricks '585 teaches although operations center 202 can compose a transmission and execute the transmission, this process can as well be executed at the headend 208. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks '573 to include headend 208 composing a transmission of said packets of content data based on said playlist and executing said transmission of said packets of content data according to said playlist as taught by Hendricks '585 for the benefit of using the cable headend to reduce the processing and transmission load on the operations center.

Regarding Claim 14, Hendricks '573 discloses a system (200 – figure 1) comprising: a content provider system (202 – figure 1) to generate packets of content data to be broadcast from the content provider system via a first network connected with the content provider system wherein the packets of content data include metadata describing the content data (Col. 7, lines 46-61 and Col. 9, lines 56-65) and compose a playlist designating an order in which said packets of content are to be broadcast (Col. 10, lines 33-48). Hendricks '573 discloses operations center 202 or "content provider system" receives packets of data from various external sources and provides the packaged packets of data to a cable headend or remote site 208 as shown in figure 1.

Further, the operations center 202 or "content provider system" performs two primary services, packaging packets for transmission and generating the program control information signal. The program control information signal reads on metadata as the program control information signal contains a description of the contents of the program package (including program lineup information and categories), commands to be sent to the cable headend 208 and/or set top terminal 220 (Col. 8, lines 34-38). Hendricks '573 discloses CAP 316 comprises a scheduler 324 which is used to composes a program lineup or "playlist" that is used to determine what programs will be made available to remote sites 208 and at what times.

Hendricks '573 discloses a broadcast system head-end (208 – figure 1) connected with said content provider system (202 – figure 1) via said first network (206 – figure 1) to receive said packets of content data and said playlist...(Col. 6, lines 15-29).

Hendricks '573 discloses a receiver (220 – figure 1) connected with said broadcast system head-end (208 – figure 1) via a second network (210 – figure 1) to receive said packets of content data...(Col. 9, lines 21-35).

Hendricks '573 discloses operations center 202 can compose a transmission of said packets of content data based on said playlist (Col. 13, lines 18-32 and Col. 20, lines 25-36), and execute said transmission of said packets of content data according to said playlist (Col. 10, lines 24-36 and Col. 20, lines 25-36). However, Hendricks '573 fails to disclose these operations are performed by the headend 208. In an analogous art, Hendricks '585 discloses the functions of the operations center 202 or "content

provider" and the cable headend 208 may be combined (Col. 9, lines 59-60). Hendricks '585 teaches although operations center 202 can compose a transmission and execute the transmission, this process can as well be executed at the headend 208. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks '573 to include headend 208 composing a transmission of said packets of content data based on said playlist and executing said transmission of said packets of content data according to said playlist as taught by Hendricks '585 for the benefit of using the cable headend to reduce the processing and transmission load on the operations center.

Hendricks '573 discloses a transmission policy (the program control information signal described above), wherein the transmission policy is based on a playout policy (see Column 16, Line 49 through Column 19, Line 36 for creating a programming package to be transmitted to the user which defines when programs will be delivered and made available for playing on a user's set-top box) and one or more network resources that are available for said transmission (see Column 7, Lines 5-45 for including television programs with the programming package), wherein the playout policy is a list of protocol-neutral and protocol-specific transmission settings (see Column 20, Lines 40-49 for parent application 08/160,282 (now Patent 5,659,350 incorporated by reference into the instant application) teaching the format for transmitting the program package information to the viewer). Further note Figures 6a and 6b and Column 20, Line 50 through Column 21, Line 15 for the format containing protocol-neutral (see variable information field 932 of Figure 6A and program access

block 932' of Figures 6a and 6b) and protocol-specific settings (see address fields 924 and 924' of Figures 6a and 6b), wherein the protocol-specific transmission settings are specific to a protocol used by a transmission execution process (see again Figures 6a and 6b and Column 20, Line 50 through Column 21, Line 15 for the protocol used by the cable headend to transmit data from the headend to the subscribers, therefore Hendricks clearly teaches that the protocol-specific transmission settings are specific to a protocol used by a transmission execution process (the software and hardware used at the headend to transmit programming packages to multiple subscribers)).

As for Claim 18, Hendricks '573 and Hendricks '585 disclose, wherein said broadcast system head-end (Hendricks '585 – Col. 9, lines 59-60): selects a playlist for scheduling (Hendricks '573 - Col. 21, lines 10-23). Hendricks '573 discloses CAP 316 generates a list of programs or "playlist" stored in storage device 316 and creates a schedule when to make the list of programs available to the subscribers.

Hendricks '573 and Hendricks '585 disclose, defines playout policy parameters (Hendricks '573 - Col. 17, lines 30-35). Hendricks '573 reads on defining playout policy parameters as disclosed, CAP 316 comprises eleven subroutines, the cable franchise routine 616 is used to determine for each headend, how much video storage space is available and what type of video signal format and video data format is needed.

Hendricks '573 and Hendricks '585 disclose, determines bandwidth required to transmit the playlist (Hendricks '573 – Col. 18, lines 59-64 and Col. 21, lines 23-24). Hendricks '573 discloses operations center 202 first determines the bandwidth required

to transmit the program lineup or "playlist" and then acquires transponder space 632 to accommodate the transmission of the program lineup.

Hendricks '573 and Hendricks '585 disclose, determines transmission policy parameters based on the bandwidth required to transmit the playlist and the playout policy parameters (Hendricks '573 - Col. 17, lines 30-35 and Col. 18, lines 59-64). Hendricks '573 discloses the cable franchise routine 616 determines how much storage space is available at cable headend 208 and based off this determination, the CAP 316 allocates transponder space 632 accordingly.

Hendricks '573 and Hendricks '585 disclose, assigns network resources to the playlist based on the transmission policy (Hendricks '573 - Col. 17, lines 28-45 and Col. 18, lines 59-64). CAP 316 allocates enough transponder space to accommodate the size of the program lineup, which is determined by the cable franchise routine 616 or "transmission policy".

Hendricks '573 and Hendricks '585 disclose, caching the transmission as active and scheduled (Hendricks '573 - Col. 21, lines 27-30). Hendricks '573 discloses the signals are stored or cached in output equipment 320 before being transmitted.

6. Claims 15-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. "Hendricks '573" (U.S. 5,600,573) in view of Hendricks et al. "Hendricks '585" (U.S. 6,463,585) and further in view of Dudkiewicz (U.S. 2002/0152474).

Art Unit: 2623

As for Claim 15, Hendricks '573 and Hendricks '585 disclose, wherein said content provider system: gathers content to be broadcast from a content cache on the content provider system (Hendricks '573 – Col. 9, lines 56-67). Hendricks '573 discloses receiver 300 receives or "gathers" content from external sources and the received content is stored or "cached" in storage device 308.

Hendricks '573 and Hendricks '585 disclose, separates said content into packages and package elements within the packages (Hendricks '573 – Col. 7, lines 26-38).

Hendricks '573, Hendricks '585, and Dudkiewicz disclose, assigns each package and package element a unique identifier (Hendricks '573 – Col. 12, lines 4-6). By disclosing holder 304 organizes the programming video data or "packages" in storage device 308, the packages have to be assigned a unique identifier in order to retrieve the requested package from storage device 308.

Hendricks '573 and Hendricks '585 disclose, stores said packages in a package cache (308 – figure 3) (Hendricks '573 - Col. 11, lines 47-60).

Hendricks '573 and Hendricks '585 disclose, assigns metadata tags identifying content within the packages and package elements to the packages and package elements (Hendricks '573 - Col. 7, lines 46-56 and Col. 8, lines 30-39). Hendricks '573 discloses CAP 316 controls the packaging process and assigns the program control information or "metadata tags" identifying content within the packages and package elements to the packages and package elements.

Hendricks '573 and Hendricks '585 disclose, marks tagged packages as ready for inclusion in playlists (Hendricks '573 - Col. 10, lines 39-48). Hendricks '573 discloses the scheduler component 324 creates the program lineup information necessary to determine what programs will be make available and therefore the packages must be tagged as ready for inclusion in the program lineups or "playlists".

As for Claim 16, Hendricks '573 and Hendricks '585 disclose, wherein said content provider system: groups all related packages into content groups (Hendricks '573 – Col. 7, lines 26-38).

Hendricks '573 and Hendricks '585 disclose, encapsulates content groups into a playlist (Hendricks '573 – Col. 7, lines 46-49 and Col. 8, lines 30-39).

Hendricks '573 and Hendricks '585 disclose, passes the playlist to a transmission composition process (Hendricks '573 – Col. 13, lines 30-32). Hendricks '573 discloses the CAP 316 provides the schedule and timing information to the output equipment 320 or "transmission composition process".

As for Claim 17, Hendricks '573 and Hendricks '585 disclose, content provider system further concatenates two or more portions of metadata in the playlist prior to passing the playlist to a transmission composition process to generate metadata representing the entire playlist (Hendricks '573 – Col. 7, lines 26-38 and Col. 8, lines 30-39). Hendricks '573 discloses packages can be schedule based on categories and therefore, CAP 316 could group or "concatenate" multiple categories together that may

be related before passing the program lineup or “playlist” on to output equipment 320 or “transmission composition process”.

As for Claim 19, Hendricks '573 and Hendricks '585 disclose, wherein said broadcast system head-end (Hendricks '585 – Col. 9, lines 59-60): reads a previously generated transmission (Hendricks '573 – Col. 21, lines 30-33).

Hendricks '573 and Hendricks '585 disclose, loads transmission policy parameters (Hendricks '573, Col. 21, lines 18-20).

Hendricks '573 and Hendricks '585 disclose, encodes announcement data for each content package into an announcement data stream describing a schedule of content to be broadcast during execution of the transmission (Hendricks '573 - Col. 20, lines 28-33). Hendricks '573 discloses creating a program control information signal or “announcement data stream” for each package comprising the program lineup, menus, and other control information.

Hendricks '573, Hendricks '585, and Dudkiewicz disclose, encodes metadata for each content package into a metadata stream providing a description of content within a content stream (Hendricks '573 – Col. 21, lines 27-30). Hendricks '573 discloses the prepared packages comprise programs, a program list, a schedule, menus, and program control information and therefore the each package is encoded with metadata. Further a description of content within a content stream must be provided so remote site 208 can deliver the package to a requesting client or receiver.

Hendricks '573 and Hendricks '585 disclose, sends pre-show content discovery information describing a schedule of content to be broadcast during execution of the transmission (Hendricks '573 - Col. 20, lines 25-36).

Hendricks '573 and Hendricks '585 disclose, sends announcement, metadata and content data streams according to a predefined timeslot format (Hendricks '573, Col. 21, lines 30-37). Hendricks '573 discloses the program signals can be converted into the format that is required by the receiving remote site 208.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks '573 in view of Hendricks '585 in view of Dudkiewicz as applied to claim 14 above, and further in view of Mitchell (U.S. 2002/0162120).

As for Claim 20, the combination of Hendricks '573 and Hendricks '585 fail to explicitly disclose selectively cache or present the packets based on a comparison of the metadata describing the content data and user profile information stored on the receiver. In an analogous art, Dudkiewicz discloses selectively caching or presenting the packets based on a comparison of the metadata describing the content data and user profile information stored on the receiver (¶ 0076 – lines 6-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks '573 and Hendricks '585 with the teachings of Dudkiewicz in order to facilitate selectively caching or presenting the packets based on a comparison of the metadata describing the content data and user profile information stored on the receiver

for the benefit of determining whether the received programming will be desirable to the user for viewing or storage (Dudkiewicz - ¶ 74).

Hendricks '573, Hendricks '585, and Dudkiewicz disclose, wherein said receiver: reads the announcement data stream (Dudkiewicz - ¶ 73).

Hendricks '573, Hendricks '585, and Dudkiewicz disclose, correlates metadata from the decoded metadata stream to user profile information stored within the receiver (Dudkiewicz - ¶ 76). Dudkiewicz discloses the client device can analyze received metadata to determine desirable upcoming programming events based on the users stored profile.

Hendricks '573, Hendricks '585, and Dudkiewicz disclose, prepares cache space adequate to store content that has metadata matching the user profile information (Dudkiewicz - ¶ 76). Dudkiewicz discloses recording upcoming programming that matches with the users stored profile, so therefore the cache space or memory must be prepared in order for there to be space within memory to record or store upcoming programming.

Hendricks '573, Hendricks '585, and Dudkiewicz disclose caches packages with metadata highly correlated with the filtering criteria (Dudkiewicz - ¶ 76). Dudkiewicz discloses recording upcoming programming events based on the desirability of the programming event as determined with respect to one or more viewer profiles stored in the client device.

However, the combination of Hendricks '573, Hendricks '585, and Dudkiewicz fail to explicitly disclose, finding a predetermined metadata Uniform Resource Locator

(URL) in the announcement data stream identifying a location of the metadata stream and decoding the metadata stream identified by the predetermined metadata URL. In an analogous art, Mitchell teaches finding a predetermined metadata Uniform Resource Locator (URL) in the announcement data stream identifying a location of the metadata stream (¶ 64, 73, and 74). Mitchell discloses triggers or "announcements" received by STB 102 or "receiving device" include metadata that identifies the URL addresses or "metadata URL" to the particular television channel, the particular program, and the time of broadcast. Further, the URL provides the location of the received metadata stream. Mitchell further teaches, decoding the metadata stream identified by the predetermined metadata URL (¶ 28). Mitchell discloses converter 206 may process or "decode" URL addresses that are received via a stream separate from the television signals or received via some other connection to the Internet or headend. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hendricks '573; Hendricks '585, and Dudkiewicz to include finding a predetermined metadata Uniform Resource Locator (URL) in the announcement data stream identifying a location of the metadata stream and decoding the metadata stream identified by the predetermined metadata URL as taught by Mitchell for the benefit of assisting the viewer in placing the supplemental content in context, or to otherwise enhance the integration of the supplemental content with the viewing experience (¶ 73).

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason P Salce
Primary Examiner
Art Unit 2623

June 27, 2007

JASON SALCE
PRIMARY PATENT EXAMINER

